

THE CIGARET INDUSTRY. EMPHASIS ON THE STRUCTURE AND  
PRICE PRACTICES AND POLICIES OF THE INDUSTRY

A THESIS

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## DEDICATION

This  
Book  
is  
Dedicated  
to  
M. N. Okpah

A.O.O.



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## INTRODUCTION

The cigaret industry is one of the most unique industries in the American economy. The chief product of the industry 'Cigaret' is a popular item of consumption among many people in America and throughout the world. For instance, in 1966, American people consumed 516.4<sup>1</sup> billion cigarettes. Cigarets account for 1.3 percent of all expenditures for non-durable goods.<sup>2</sup> Cigarets drew \$194,079,300 on net and spot television in 1966, making the category the fourth highest television advertising customer.<sup>3</sup> It is apparent that the figure for 1966, will be exceeded in 1967.

Because of the financial contribution to the economy and because of the social and public attention focussed on cigarettes, it will be a rewarding experience to study some aspects of the operations of the industry. The present study will concentrate on the market structure and the pricing practices and policies of the industry. Marketing

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<sup>1</sup> Marketing Insight. "Cigaret brands proliferate as marketers lean toward longer, more exotic versions", October 9, 1967., p. 22.

<sup>2</sup> Adams, Walter. The Structure of American Industry. New York: The MacMillan Company, 1961., p. 357.

<sup>3</sup> Marketing Insight. "Despite Critics and possible ad. ban, Cigaret Makers hike T.V. Spending", October 16, 1967, p.8.

structure in a particular industry depends in significant respects upon the techniques of competition among the participating firms in the industry.<sup>4</sup> So, this paper will be dealing mostly with the competitive tools, such as price policies, advertising and the resultant behavior of the industry.

Also to be included in this paper are the methods the industry is using to meet the challenges of the various campaigns against the consumption of cigarettes, the influence of market structure and price policy on the consumption of and demand for cigarettes. Some attempts will be made to find facts about such pertinent questions as (a) Can the cigaret industry continue to survive all the anti-smoking attacks and campaigns and make profits? (b) How serious are the Governments regulations through the various tax systems? (c) What is the trend of present cigaret consumption?

The main sources of materials are from these recently published studies which include information on cigarette industry,

- (a) The structure of American Industry by Walter Adams.
- (b) Economics of American Industry, by Alderfer and Michl.
- (c) The American Cigarette Company by Richard B. Tennant.
- (d) Price Policies in the Cigarette Industry by William Nicholls.

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Harvard Business School. "The matter of Procter and Gamble".  
EA-R 375, p. 24.

This paper is written in the following order. Chapter one deals with the demand and consumption of cigarettes through the various periods in the history of the industry. The same chapter deals with the market structure of the cigarette industry and the relative behavior of the industry. Chapter two deals with the price practice and policies of the industry and relates the behavior of the industry and consumers to the demand functions of price policies. The various forms of competitive methods are dealt with in this chapter. Chapter three is analysis of the relationship between the industry market structure and the price policies and the effect of these on the demand and consumption of cigarettes. The last chapter (chapter four) deals with the future of the cigarette industry, summary and conclusions.

## CHAPTER I

### DEMAND AND CONSUMPTION OF CIGARETS.

The demand and consumption of cigarettes have been on the increase from year to year. Unlike many products, cigarettes have many characteristics which make its demand and consumption inelastic. Based on past experience, cigarette sales are virtually depression resistant. Changes in disposable income have some effects on cigarette consumption, but other factors, including the difficulty of breaking the habit, the increasing population and the relatively small unit costs, have combined<sup>1</sup> to sustain consumption during periods of economic unsettlement.

The cigarette industry experienced moderate growth during the past decade. The percentage gains in sales generally exceeded that in population as a result of principally favourable shift in the age composition of the population and of the increase in the number of<sup>2</sup> women smokers. People between the ages of 18 and 50 are more now in the population of the United States. It is among these ages that the highest per capita consumption of cigarettes are found. The number<sup>3</sup> of these age groups will continue to increase for the next twenty years.

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<sup>1</sup> Standard & Poore's Industry Surveys. (April 21, 1966) P.T. 64.

<sup>2</sup> Ibid.

<sup>3</sup> Ibid.

Table one shows the consumption of tobacco products according to specified population group. While population factors will continue favourable, any gains in cigaret consumption in the future may be more in line with increase in population.<sup>1</sup> Label warnings, the industry advertising codes, higher prices, and anti-smoking campaigns point to less growth in per capita consumption in the smoking age groups.<sup>2</sup> Domestic cigaret consumption in 1965 rose 2.8 percent to 511.5 billion units, reaching a new high slightly in excess of the 1963 total, which was before the January 1964 Surgeon General's Report on smoking and health.<sup>3</sup> A new all time record is predicted for 1967. The united States Department of Agriculture estimated that 551 billion cigarets will be smoked in 1967 -- 10 billion more than were smoked in 1966.<sup>4</sup>

The Surgeon General's report mentioned above, condemned cigaret smoking as causative factor in a number of diseases, notably lung cancer. These conclusions based on statistical comparisons, caused the first decline in the usage of cigarets in a decade during 1964, but its effects were apparently over within six months.<sup>5</sup> The 1965 gain was recorded despite excise tax

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<sup>1</sup>  
Ibid.

<sup>2</sup>  
Ibid.

<sup>3</sup>  
Ibid.

<sup>4</sup>  
Ibid.

<sup>5</sup>  
Ibid.



TABLE I

TOBACCO PRODUCTS-DOMESTIC CONSUMPTION BY  
SPECIFIED POPULATION GROUPS

YEARS	*CIGARETS NUMBER	T- LARGE CIGARS & CIGARET USERS	*CIGARETTES POUNDS	T- LARGE CIGARS & CIGARET USERS	SMOKING CHEWING TOBACCO POUNDS	*SNUFF POUNDS	*TOTAL TOBACCO PRODUCTS
1965	4262	143.9	9.35	2.65	2.33	0.24	11.55
1964	4195	154.4	9.20	2.72	2.53	0.26	11.54
1963	4345	124.6	9.70	2.39	2.33	0.27	11.78
1962	4265	121.9	9.69	2.40	2.34	0.28	11.80
1961	4266	122.9	9.84	2.43	2.43	0.29	12.00
1960	4172	124.7	9.64	2.42	2.43	0.30	11.82
1959	4073	124.9	9.44	2.55	2.51	0.29	11.73
1958	3953	117.3	9.46	2.45	2.60	0.31	11.73
1957	3755	113.0	9.21	2.37	2.56	0.32	11.44
1956	3650	110.8	9.35	2.41	2.66	0.34	11.65
1955	3597	112.8	9.49	2.60	2.91	0.35	11.99

\*=Consumption per capita, 18 years and over. T=Consumption per male, 18 years and over.

Source: Standard & Poore's Industry Survey. (April 21, 1966, Section 2) p. 64.

increases in twenty two states. Table two, showing taxpaid withdrawals, which also represent the amount of cigarets smoked over the past decade, 1955 to 1965, show the steady increase in cigaret consumption with exception of 1964.

With the increase in sales of cigarets also came waves of anti-smoking campaigns. The release of the Surgeon General's report in 1964, was followed by such requirements on the part of cigaret makers to put a health warning on packages. Regulations on advertising was postponed until 1969. The industry's own regulations prohibit advertising in media reaching young persons, (this is causing a decline in the use of Radio for cigaret advertising. More will be said on this under advertising in Chapter two) barred health claims, endorsement by celebrities<sup>1</sup> and use of persons under 25 in advertising.

A series of subsequent reports differing little from the original ones have been released by Government or private agencies.<sup>2</sup> Starting in 1966, such reports have been promoting low tar and nicotine brands as an alternative to non-smoking. Both absolutely and on a per capita basis, cigarette consumption has increased.<sup>3</sup> Since the smoking - health report of 1962, the position of the British Government has become increasingly adverse to smoking posters, prints, and television

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<sup>1</sup>  
Ibid.

<sup>2</sup>  
Standard & Poore's Industry Surveys. (May 4, 1967, Section 3). pp. 65-67.

<sup>3</sup>  
Ibid.

TABLE 2  
CIGARETTES -TAX-PAID WITHDRAWALS  
BETWEEN 1955 AND 1966  
IN BILLIONS OF CIGARETTES

YEAR	NUMBER OF CIGARETTES
1965	511.5
1964	497.4
1963	509.6
1962	494.5
1961	488.1
1960	470.1
1959	453.7
1958	436.4
1957	409.4
1956	393.2
1955	382.1

Source: Standard and Poore's Industry Surveys (April 21, 1966  
Section 2) p.64.

commercial<sup>1</sup>s favourable to smoking. Still 117.7 billion cigarettes<sup>2</sup> were consumed in United Kingdom in 1966, against 109.9 billion in 1962. In 1966, when anti-smoking efforts were at their zenith, consumption<sup>3</sup> rose 5.1 percent. Coupon promotions, new brands introduced and price among super markets were more important to consumers than the absence of a large portion of normal advertising and presence of a<sup>4</sup> considerable amount of anti-smoking potentials. Because of increase in the smoking age groups, the nature of cigaret demand and the introduction of new brands, moderate growth in domestic demand for ciga<sup>4</sup>rets is sure to continue.

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<sup>1</sup>  
Ibid.

<sup>2</sup>  
Ibid.

<sup>3</sup>  
Standard & Poore's Op. Cit. p.64.

<sup>4</sup>  
Ibid.

### ELASTICITIES OF DEMAND FOR CIGARETS:

The various elasticities of demand for cigarettes presents an interesting study. As a product, cigaret offers little or nothing of economic value to the user. The satisfaction derived from cigarettes is basically psychic and its continued use is based on the habit-forming powers that become a part of its users. Cigarets do not fall into a luxury class because the cost for them is very small in relation to most luxury products. So, its use is available to all segments of the economy.<sup>1</sup>

Cigarets are only one of the forms in which tobacco may be used. Other forms in which tobacco may be used are pipe smoking, chewing tobacco, cigars and snuff. Table one shows the various amount of the tobacco products consumed by specified age groups. Nevertheless, in the past thirty years, the consumption of cigarettes have grown from 3.4 percent to about 88 percent while consumption of other tobacco products<sup>2</sup> has not grown as fast as that of cigarettes.

Although the preference for factory made cigarettes is high in relation to other tobacco products, substitution may be made with cigars,<sup>3</sup> pipe, chewing or roll-your-own cigarettes. These tobacco products

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<sup>1</sup> Richard B. Tennant. The American Cigarette Industry. (New Haven, Yale University Press) 1949, p. 126.

<sup>2</sup> Ibid.

<sup>3</sup> Roll-your-own cigarettes are those made with smoking tobacco which are rolled into cigarette paper by the user.

share the highest degree of interproduct competition with cigarettes. There have been substitutability in the use of cigarettes through various stages in the history of the cigarette industry.<sup>1</sup>

Anti-smoking campaigns which raised public hostility against cigarettes, caused laws to be passed prohibiting the sale, possession of cigarettes, and forced cigarette smokers to use other tobacco products.<sup>2</sup> At many occasions, cigarette smokers switched to other tobacco products when taxes on cigarettes were raised precipitiously.<sup>3</sup> Much substitution also occurred during the depression. At that time, prices of the regular brands had been raised to a new high and personal income was on the decline.<sup>4</sup> Smokers at this time had the advantage of interbrand substitution as well as interproduct substitution. The 10 cents cigarettes made interproduct substitution possible in that they appealed to those whose incomes had been reduced. From this it can be concluded that the demand for cigaret per se is not inelastic. In the period of stable income, there is relatively little sensitivity in demand for cigarettes. In the early stages of the cigarette industry, price changes had definite effect upon cigaret consumption. In the 1960's the factors which made cigarette demand respond to price changes have not been in evidence.<sup>5</sup> One reason for this is that the growth in

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<sup>1</sup> Tennant. Op. Cit. pp. 134-135.

<sup>2</sup> Ibid.

<sup>3</sup> Tennant. Op. Cit. p. 144.

<sup>4</sup> Ibid.

<sup>5</sup> Ibid.

cigarette consumption has not been concentrated in cheap grades. Much larger tax increases than those in 1890s have not been able to check the increase in consumption, and the higher level of prices which now obtain any given absolute change is proportionately smaller.<sup>1</sup>

On price elasticity on cigarets, Mr. Tennant concluded that:

'It is probably still true that very large change in cigaret prices would affect consumption patterns but in the area of observed prices for the past 35 years elasticity of demand is low. There are factors other than income and price level which may affect the elasticity of demand for cigarets. A case is recent association of prevalence of lung cancer to cigaret consumption.<sup>2</sup>

Harry M. Wootten's annual studies on cigaret consumptions showed that sales on regular brands of cigarets dropped considerably in 1953.<sup>3</sup> The interchangeability of products is reflected in the change of a large percentage of the smoking population to filter-tip and king size cigarettes which claimed to have reduced susceptibility of contracting cancer due to their length or the filter used.<sup>4</sup>

For the individual brands, the sales are more variable than for the total cigarettes. According to Tennant, brand sales were subjected

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<sup>1</sup> Tennant. Op. Cit. p.145.

<sup>2</sup> Tennant. Op. Cit. p.145.

<sup>3</sup> Harry M. Wootten. "In 1953 cigarette sales 2% under 1952". Printers Ink. January 15, 1954. Reprint.

<sup>4</sup> Ibid.

to violet year to year fluctuations. Harry M. Wootten's studies also show that sales fluctuate from year to year even though the general trend is up.<sup>1</sup> Each brand is a substitute for another brand and brand switching is a rather frequent occurrence. If brand switching does occur, it would seem that brand sales would be highly sensitive to prices. Such sensitivity should cause a great increase in brand sales of a given brand, if prices are cut. However, there are other factors which in short run, make brand sales insensitive to prices. The factors may be brand loyalty and advertising appeal.<sup>2</sup>

On the whole, Tennant's conclusion on factors responsible for cigarette demand is that:

"Cigarette consumption depends primarily on long run tastes and trends in national income."<sup>3</sup>

The above quotation helps to prove what has been mentioned earlier in this chapter. Demand is insensitive to moderate price changes when disposable income and national income are increasing from year to year. Demand becomes sensitive to prices usually during business depression when purchasing power is low. Such happened during the depression of the early thirties. What happened at that time helps to illustrate that although the demand for cigarets is generally conceded to be inelastic, the market is not entirely insensitive to price changes. This is demonstrated by

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<sup>1</sup> Harry M. Wooten. "Cigarette sales increase 4.5% over 1951. Printers Ink. (January 9, 1953)

<sup>2</sup> Ibid.

<sup>3</sup> Tennant. Op. Cit. p. 173.



the advent of the 10-cents cigaret during the early thirties.

"In the middle of 1931, when leaf tobacco prices were declining and consumer purchasing power was falling by reason of the widening business depression, the 'Big three' cigaret companies raised the wholesale price of cigarettes from \$6.40 to \$6.85 a thousand. The error of this pricing policy was subsequently appreciated because it opened the way for the 10-cents packages of cigarettes. By 1939, the 10-cent brands had seized almost 12 percent of the total business".<sup>1</sup>

The reason for the switch from the high grade tobacco to the 10-cent brands was because of the decline in national income which subsequently affected disposable income.

Table four helps to illustrate the implication of the long taste as mentioned above. The table shows the percentage that Federal, State, and local taxes are of total expenditures for tobacco products. As cigarette comprises the largest item of tobacco products, it can also be assumed that greater proportion of the tax went to cigaret consumption.

By examining table four, it can be seen that over the fourteen year period, 1939 to 1952, that excise taxes average 43 percent of the expenditures for tobacco products. The ability of the commodity to support a tax of this proportion and to show no decrease in consumption in the long run, indicates that cigarettes have inelastic demand. It can also be seen that the consumption of cigarettes in the long run is inelastic from the proportion of total expenditures represented by excise taxes.

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<sup>1</sup> Alderfer, E.B. Economics of American Industry. (New York, 1950) p. 635.

TABLE 3

EXCISE TAXES AS A PERCENT OF CONSUMPTION  
EXPENDITURES FOR TOBACCO PRODUCTS  
(MILLIONS OF DOLLARS)

YEAR	FEDERAL TAXES	STATE AND LOCAL TAXES	TOTAL TAXES	EXPENDITURES FOR TOBACCO PRODUCTS	PERCENT
1939	593	182	775	1773	44
1940	645	200	845	1875	45
1941	748	213	961	2073	46
1942	859	212	1071	2329	46
1943	990	212	1202	2579	47
1944	925	215	1140	2567	44
1945	1034	231	1265	2930	43
1946	1219	271	1490	3453	43
1947	1267	324	1591	3874	41
1948	1312	368	1680	4147	41
1949	1320	413	1733	4266	41
1950	1348	469	1817	4409	41
1951	1446	503	1949	4700	41
1952	1662	578	2240	5200	43
TOTAL	15188	4391	19579	46175	43

Source: 1939-1950 U.S. Department of Commerce: National Income and Product in the United States. 1939-1950 Supplement to Survey of Current Business. (Washington, 1951) pp. 154, 192-193.

TABLE 4

HOW THE IMPORTANT CIGARET PRODUCERS SPLIT  
THE MARKET -UNITED SALES  
(IN BILLION OF CIGARETS)

COMPANY	ALL CIGARETS		REGULAR SIZE		KING SIZE & NON- FILTER		FILTER TIPS	
	1965	1964	1965	1964	1965	1964	1965	1964
1 R.J.Reynolds	167.4	165.5	30.5	52.5	---	---	116.9	113.0
2 American Tobacco	136.3	126.4	29.2	31.0	74.9	13.4	32.2	22.0
3 Brown & Williamson	68.0	58.9	2.9	2.8	4.1	3.8	61.0	52.3
4 Philip Morris	54.1	48.7	2.0	2.4	3.6	3.8	48.5	42.5
5 P. Lorillard	46.7	47.7	.5	.8	1.0	1.6	45.2	45.3
6 Ligget & Myers	42.9	48.6	6.1	7.0	9.3	10.0	27.5	31.6
7 All Others	2.0	1.6	.2	.3	.6	.4	1.2	.9
8 Total	517.4	497.4	91.4	96.8	93.5	93.0	332.5	307.6

Major Brands only. Minor brands included in "all other" category. Inclusion would not alter positions.

Source: Business Week. (December 11, 1965) p. 48

## THE MARKET STRUCTURES

The present cigaret industry is a descendant of the American Tobacco Trust. The Trust was the outgrowth of the American Tobacco Company which was organized by James B. Duke in 1890.<sup>1</sup> This company was a merger of five smoking companies. They were Allen & Ginter of Richmond, Virginia, William S. Kimball and Co. of Rochester, New York, Kinney Tobacco Company, Goodwin and Company from New York, and W. Duke Sons and Co.<sup>2</sup>

The Trust was regarded with hostility by tobacco farmers, by distributors, by the public at large, and by competitors whom it suppressed. In 1911, the Supreme Court held the American Tobacco Company and all its subsidiaries and affiliates to be in violation of the Sherman Act.<sup>3</sup> A subsequent circuit court decree divided the assets and business among some sixteen successor companies.<sup>4</sup>

The basic structure of the cigaret industry has remained practically the same since the dissolution of the Trust with one exception. With the past two decades, P. Lorillard has lost its position to Philip Morris, a relatively new comer into the industry. Another reasonable producer of recent years is Brown & Williamson. The remainder of the cigaret business is spread among numerous producers.

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<sup>1</sup> Walter Adam. Op. Cit. p. 358.

<sup>2</sup> Ibid.

<sup>3</sup> Tennant. Op. Cit. p. 270.

<sup>4</sup> Ibid.

The cigaret industry is oligopolistic.<sup>1</sup> It is composed of competing firms producing perfect substitute products in which there are several large firms which individually produce enough of the total output to affect the market and the behavior of its competitors.

Joe S. Bain, in his "Price Theory", said that the cigaret industry is a complex form of oligopoly because a few sellers control a significant proportion of the industry output and the remainder of the industry output is supplied by a number of small firms with very small individual shares of this output. The industry could be said to be an "oligopoly" with a competitive fringe.<sup>3</sup> Joe S. Bain also gave two reasons for oligopoly in an industry:

- (a) A few firms secure a dominant position in the industry from the date of its origin and protect this position against the inroads of established potential competitors.
- (b) If the industry has been atomistic in structure (composed of many firms) that a few firms later secure and retain control of a dominant share of the market.<sup>4</sup>

The reasons apply to the cigaret industry. The industry is oligopolistic due to the size of the firms emerging out of the Tobacco Trust. The major companies in the industry with the exception of perhaps Philip Morris and Brown & Williamson, are the original successor companies who have retained control of their dominant positions.

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<sup>1</sup> The basic characteristic of oligopoly is 'fewness'. Oligopoly exists whenever a few firms dominate the market for a product.  
McCornell, Campbell R. Economics Principles, Problems and Policies. New York: p. 396.

<sup>2</sup> Joe S. Bain, Price Theory. (New York 1952) pp. 70-71.

<sup>3</sup> Ibid.

<sup>4</sup> Joe S. Bain. Op. Cit. p.270.

The cigaret industry has shown a high concentration of output and marked similarities of competitive technology and policies. The principal factors responsible have been the technology of cigaret manufacture and the nature of cigaret demand. The demand for all tobacco products taken together is highly inelastic. Ever since the first discovery of the weed, tobacco has been a favorite object of taxation and of state or private monopoly because of the heavy charges which it can bear without appreciably diminishing consumption.<sup>1</sup> The urgency of the wants which tobacco satisfies, the small cost of relatively expensive tobacco and the complete lack of substitutes make the volume of tobacco consumption independent of price over a wide range.<sup>2</sup> Between 1900 and 1958 the consumption of tobacco in the form of cigarets rose from 3.4 percent to 88 percent of total tobacco consumption.<sup>3</sup> Yet it appears that in any short period of time, very little substitution takes place in response to economic incentive. According to

Richard B. Tennant,

"Changes in tobacco usage appear to be carried along a broad social current of fashion and taste and do not seem to be greatly influenced either by relative price of tobacco products or by advertising activity. In the long run, the consumption of cigaret is almost wholly insensitive to changes in prices or in advertising pressures with the range of changes which can be observed. Although demand for all tobacco products is inelastic, the demand for individual brands of cigarets is highly elastic in its response to price."<sup>4</sup>

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<sup>1</sup> Walter Adams. Op. Cit. pp. 370-371.

<sup>2</sup> Ibid.

<sup>3</sup> Ibid.

<sup>4</sup> Ibid.

## CHAPTER II

### PRICE PRACTICES AND POLICIES

The cigaret industry more than any other, has passed on to the consumer benefits of increasing efficiency resulting from the more complete mechanization of production.<sup>1</sup> To some extent, the industry avoided raising prices to offset higher costs during the past decade. Prices had been unchanged from 1957 through early 1963 when wholesale prices of king-size and regular-size non-filter brands were raised \$0.10 a thousand and \$0.35 a thousand respectively.<sup>2</sup> In April 1965, Lorillard increased the wholesale price of its filter cigaretts by \$0.35 per thousand.<sup>3</sup> The raise did not hold when neither American nor Reynolds went along with it. In early 1966, American posted an increase of \$0.40 per thousand for both filter and non-filter, but it too, did not hold as other companies did not join. Consumers paid an average of 30 cents per pack of 20 cigaretts in 1965 of which 51.4 percent represented Federal and State excise taxes, compared with 28.2 cents in 1964 of which 49.8 percent represented Federal and State excise taxes. Twenty two states increased excise taxes in 1965.<sup>4</sup> All the increases in costs did not induce the industry to increase their

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<sup>1</sup> Standard & Poore. Industry Surveys. (April 21, 1966, Section 2) p. 66.

<sup>2</sup> Ibid.

<sup>3</sup> Ibid.

<sup>4</sup> Ibid.

prices. The manufacturers used other methods to delay price increase. One method used was the reduction of tobacco contents in cigarettes. Since 1953, when 2.9 pounds of tobacco leaf was needed to make 1,000 cigarets, leaf requirements declined in each year through 1964, when<sup>1</sup> 2.2 pounds was required.

This primarily reflects the increased popularity of filter brands. The filter plug reduced the tobacco content required. The<sup>2</sup> use of reconstituted leaf is more feasible in filter cigarets.

In an oligopolistic industry like cigaret industry, pricing is of vital importance to the firms in the industry. At first glance, one might suspect that price-output determination similar to that of a pure monopoly would be applicable to an oligopolistic firm. The only difference might be that the oligopolist's sales curve would be somewhat more elastic, because he is plagued by a few close substitute goods, while the pure monopolist faces no good substitutes at all. Marginal cost and marginal revenue comparisons would then determine the profit maximizing output and the unique price at which this output could be sold. But it is very difficult to explain the price-output policies using the formal economic<sup>3</sup> theory. This is because oligopoly encompasses many specific market situations which range from pure monopoly to monopolistic competition.

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<sup>1</sup> Ibid.

<sup>2</sup> Reconstituted leaf or tobacco is obtained by combining the small tobacco scrap with certain fibers in the whole leaf. The mixture is rolled into sheets, cut and shredded exactly as are whole strips of leaf tobacco.

<sup>3</sup> McConnell, C.R. Op. Cit. pp. 506-508.



Such situations work against the development of a single, generalized<sup>1</sup> explanation or model of how an oligopoly determines price and output. Pure competition, monopolistic competition and pure monopoly all refer to rather clear-cut market arrangements; oligopoly does not. Another reason why price-output cannot be easily determined as in the economic model is because of element of mutual interdependence which fewness adds to the analysis. That is, the inability of a firm to predict with certainty the reactions of its rivals makes it virtually impossible to estimate the demand and marginal revenue data faced by an oligopolist. And with such data, firms cannot determine their profit maximizing price and<sup>2</sup> output even in theory. Despite these analytical difficulties, two interrelated characteristics of oligopolistic pricing stand out. Oligopolistic prices tend to be inflexible and also price changes less frequently in oligopoly than they do under pure competition, monopolistic competition and in some instances, pure monopoly.<sup>3</sup> These are so because any price change made by any of the participating firms in the oligopoly, is certain to be met or matched by its competitors. So, in the cigaret industry an oligopolistic policy is pursued. The mechanism used by industry to adapt the price to changing market conditions is price leadership. Mr. Fritz Machlup sets up four types of price leadership:

- (a) The followers are very small producers who have no choice of price . . . (b) The followers have a choice of prices in the sense that they would lose more sales,

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<sup>1</sup> Ibid.

<sup>2</sup> McConnell, C.R. Op. Cit. p. 508.

<sup>3</sup> Ibid.

but not all by raiding prices above the level set by the leaders, and might gain some business by lowering prices below that level, yet in spite of the attractiveness of underselling the leader, they must refrain from doing so or invite punishments through smashing price raids, costly patent law suits or other harassing tactics.

- (c) The followers have the choices as in type (b), but refrain from underselling the leader, not from fear of punishment by the latter, but because they expect that the leader would turn around and accept the lead of the competitors and meet his lowered price. This would all but nullify the effect of the move of the far-once-leading 'followers' and would turn a smart, profitable move into a stupid and costly one.
- (d) The followers have the choice of price, but having learned that independent pricing allows the buyers to play off one seller against the other, resulting in the generally lower prices and is, in the long run, less lucrative than concerted action, they have secretly or tactily agreed to proceed in union, letting the stronger member of the industry act as leader of the concert.<sup>1</sup>

For the cigaret industry at least, the conditions (a) and (b) are ruled out. Conditions (c) existed in the period between 1913 and 1919, but proved unprofitable. Since 1923, there has been for the most part, concerted price, with Reynolds and American Tobacco Company struggling for the position of price leadership.

Between 1913 and 1919, the list prices of cigarets of various companies increased from \$3.90 to \$8.20 with first one company and then another initiating the price increase. The list price of the respective brands of each company fluctuated in that at times the brands had the

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<sup>1</sup> Fritz Machlup. The Political Economy of Monopoly. (Baltimore: 1952) pp. 134-135.

same price, at times they were lower than the other two.<sup>1</sup> It is clearly evident following the discussion in this paper, that in the years immediately following the dissolution, the trend in pricing was upward and that the producers tended to watch each other's pricing policies.

Between 1920 and 1923, there was an era of price reduction which was brought about because there was a large inventory of leaf tobacco which had to be used. American Tobacco Company initiated the drop by reducing the price from \$8.00 to \$7.75.<sup>2</sup> Reynolds followed by reducing Camels to \$7.50. Several other cuts were made until 1923 when prices for Camels, Chesterfields, and Lucky Strike became \$6.40, \$6.40, and \$6.45 respectively. Net prices were \$2.645, \$2.645 and \$2.689 respectively.<sup>3</sup> Many practices were used in this period to avoid outward price competition. Some of these devices were "drop shipment" special deals, secret discounts and advertising allowances.<sup>4</sup> By 1923, these devices were no longer in use. The industry entered a period of entirely identical prices, discounts and net prices. The chief competitive weapon of the industry at this time became nation-wide advertising and concentrated promotion of one brand.<sup>5</sup>

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<sup>1</sup> Nicholls, William. Price Policies in the Cigarette Industry. (Nashville: The Vanderbilt University Press, 1951), pp. 53-54.

<sup>2</sup> Nicholls. Op. Cit. p. 52.

<sup>3</sup> Nicholls, Op. Cit. pp. 52-53.

<sup>4</sup> Ibid.

<sup>5</sup> Ibid.

The revolution in the cigaret industry brought by Camel and the First World War, was completed in all essentials by 1920. The leading brands were established, old brands were obsolete or obsolescent, premiums and coupons were abolished, and national advertising was adopted as the principal competitive weapon, and essential identity of prices among the leading brands was established. Reynolds<sup>1</sup> assumed the role of price leader.

From 1923 to 1931, the industry followed a pattern of oligopolistic pricing<sup>2</sup> because identical list prices were maintained for the leading brands. The pricing policies of the cigarette industry since 1939 have fluctuated less than they did in the earlier period. The second world war had considerable effect on the industry in that price controls were put on products. There was no need for price competition in the industry at this time because the demand for any firm's products was greater than the supply. The effect of the price control was to<sup>3</sup> keep down inflation.

After the heavy demand and shortages of the Second World War, the big three, American Tobacco Company, Reynolds and Lorillard, dominated the industry. Basically, the same policies of non-price competition and vigorous sales promotion were followed just as after

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<sup>1</sup> Tennant. Op. Cit. p. 87.

<sup>2</sup> Ibid.

<sup>3</sup> Tennant. Op. Cit. p. 87.

1923. William Nicholl Summarized the situation between 1939 and 1950 as follows:

The years 1939-1950 brought three types of aberration from cigarette price policies which had become almost traditional for the major successor companies since 1923. First, new firms attempted to assume the role upward as price leader. Secondly, for the first time since 1923, price increase initiated by one of the successor companies were twice unsuccessful, in that the major companies refused to follow. Finally, for the first time since 1929, there were slight departures from absolute list and net prices identity among successor companies of major cigaret brands.<sup>1</sup>

Also Richard B. Tennant made the following comments about the price policies in the cigaret industry.

"In this industry with its few large firms and high degree of interbrand elasticity, identical retail prices are indicated even in the absence of collusion. The lack of dealers' ability to influence brand sales make wholesale price concessions unprofitable, while unusual exactions from distributors run unnecessary risks for differential. Neither at retail nor at wholesale does there seem a place for price competition among the major companies."<sup>2</sup>

From the studies of the industry the trend in pricing policies has gone from price competition to an era of non-price competition and heavy advertising expenditures.

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<sup>1</sup>

Nicholls, William. Op. Cit. p. 162.

<sup>2</sup>

Tennant. Op. Cit. p. 4.

COMPETITION AND OTHER INDUSTRY BEHAVIORS:

A low degree of brand loyalty among cigaret smokers makes for extremely competitive conditions with the industry.<sup>1</sup> This is evident from the shifts in market positions among the industry leaders over the past several years. Success usually depends upon broad and intensive advertising coverage, as well as innovations in packaging and design. The health question played a greater role in spurring demands for filters. This is illustrated by Kent (Lorillard and Meyers) volume which gained sharply in 1964, although the sales volume dropped 12.8 percent in 1965.<sup>2</sup>

As table five indicates, there has been a proliferation of new brands in recent years, increasing competition and results have varied from brand to brand.

More attempts will be made to make cigarette smoking safer in the future. According to an article in Marketing Insight, the following new moves were made recently.

"The waves of new entries into the cigarette field September (1967) demonstrated anew the impact on cigarette marketers of the health vs. smoking controversy. Having converted regular brands into filter, regular, menthol and charcoal -- the industry this year pushed into the 100mm lengths and now appears poised on the edge of more exotic ventures.

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<sup>1</sup> Standard and Poore's Industry Surveys. (April 21, 1966) pp. 66-67.

<sup>2</sup>. Ibid.

TABLE 5

NEW CIGARET BRANDS BY THE SIX MAJOR COMPANIES

COMPANIES AND THEIR VARIOUS BRANDS	YEAR OF FIRST SIGNIFICANT VOLUME		1965 VOLUME OF THE NEW CIGARETS IN BILLION UNITS
	YEAR	VOLUME IN BILLION UNITS	
1. American Tobacco			
Riviera	1959	0.2	---
Half & Half	1964	1.0	2.30
Montclair	1962	0.2	1.40
Carlton	1964	1.5	.90
Lucky Strike Filter	1964	0.15	5.10
Pall Mall Filter	1965	1.30	1.30
2. Brown & Williamson			
Belair	1959	0.1	7.78
Kool Filter	1957	6.6	20.24
Life	1959	0.7	0.18
3. Liggett & Myers			
Oasis	1957	0.9	0.35
Duke	1959	1.0	0.07
Lark	1963	1.61	8.20
4. Lorillard			
Newport	1957	0.9	8.70
York	1961	0.2	0.45
Spring	1960	0.7	1.56
5. Philip Morris			
Paxton	1963	2.0	1.60
Philip Morris Filter	1964	2.95	4.65
6. Reynolds Tobacco			
Brandon	1962	0.2	0.12
Tempo	1964	2.0	2.0
Camel	1965	Test	Market

Source: Standard & Poore's. Op. Cit. (April 21, 1966, Section 2), p. 66.

American Tobacco Company last month introduced a thinner cigaret, Silver Thin, while P. Lorillard came out with a no-name brand. Ligget & Myers entered a 101mm cigaret and Brown & Williamson Tobacco Corporation delivered a 99 mm cigaret.

The cigaret industry continues to see sales rise--1966 was 8.6 percent ahead of 1965 as Americans smoked 516.4 billion cigarets compared with 512 billion in 1965. Although non-filter brands dropped to 163.1 from 179.4 billion the previous year, increased filter brands smoking led to the record filter sales. Sales rose to 353.3 billion, led by the plain filter brands (15 of them) totalling 223.8 billion cigarets." 1

The basic characteristics of cigarette demand give important market advantage to the large firms. It is possible to compete either through price cutting or through advertising and both methods have been used at one time or another. If prices were cut to gain business, as was the frequent practices under the Trust, it forces other firms to follow suit if they are not to lose a large portion of their business. This means that no firm in cigarette industry can expect to gain customers by price cutting without inviting retaliation.

But if prices are cut until all companies are losing money, it is the largest and strongest which can hold out and endure losses until the small firms go under.

On the other hand, when competition is conducted through advertising, its effectiveness depends largely on the amount spent in promoting

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1 "Cigaret brands proliferate as marketers lean toward longer, more exotic versions". Marketing Insight. (October 9, 1967)

2 Walter Adams. Op. Cit. p. 372.



a given brand. Skillful salesmanship may allow one company to achieve the same results as another with only half the expenditure, for the persuasiveness of the advertising depends as much on the sales message as on the loudness with which it is shouted. Where advertising abilities are evenly distributed, the larger expenditures win, and it is the big company which can afford these outlays.<sup>1</sup> Another advantage to large companies arises from the requirements for distribution. With thousands of wholesalers and a million and half retail outlets, and with heavy dependence of cigarette purchases upon convenient access, the maintenance of complete distribution requires expensive field sales activities. The major companies each employ many hundreds of salesmen to visit wholesalers and retailers for order taking, stock supervision, points of sales display and other promotions. The expense of such activities are borne more easily by large companies. A small producer can avoid some of these distributions, but this will reduce his market opportunities.<sup>2</sup> For these reasons the output of the Cigarette Industry is concentrated.

The concentrated structure of the industry and the peculiarities of cigarette demand have a profound influence upon the industry behaviour. When firms are large, they need not accept the going market price and demand conditions as something given outside their own control. Each firm must set its own policy in the knowledge that its

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<sup>1</sup>  
ibid.

<sup>2</sup>  
ibid.

action will affect the industry as a whole and two entirely different types of behavior are possible. Policy may be directed either to eliminate weaker competitor by outright warfare or to ensure maximum profits on the assumption that all firms will survive. Price and advertising policies provide adequate tools for either task, and at various times in history ends have been pursued and both tools have been used.<sup>1</sup>

When Duke (organizer of the Trust Company) was a power in the industry, competitive measures were directed to injuring competitors, so that they would either abandon business or agree to join forces. Usually extreme pressure by price cutting and advertising were combined with relatively generous offers to buy. After the dissolution of the Trust, competitive strategy was directed to increase profits rather than injuring competitors. It was then possible neither to eliminate competitors, nor to join them and the major successor companies were forced to adopt their policies to a situation in which each others' continued existence and independence must be taken for granted.<sup>2</sup> In these circumstances, price cutting has serious disadvantages as competitive weapons. An individual oligopolistic firm's control over price tends to be closely circumscribed by the mutual interdependence which characterizes such markets. If a given firm

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<sup>1</sup> Ibid.

<sup>2</sup> Ibid.

lowers prices, it will initially gain sales at the expense of its several rivals. However, these adversely affected rivals will have little choice but to retaliate to recover their shrinking shares of the market. They will watch or even undercut the given firm to preserve their market share. The result may be a price war and possible losses for all firms.<sup>1</sup>

It will be cheaper to use advertising as competitive tool than prices. Even though competitive advertising may increase advertising outlays, the increase will be very negligible when applied to the unit sales or the sales volume that will result. Competitive advertising campaigns designed to change the division of the market will undoubtedly lead to increased sales.

The disadvantages of using retail price competitive tool do not appear so strongly in the case of wholesale prices. Cigaretts are normally sold to jobbers at a price set by the manufacturers, while the prices at which jobbers resell to retailers and the latter resell to the public are set by competition among distributors, modified by occasional collusive agreement. Thus, while the major firms strive to maintain identical retail prices, it is possible that one of them may seek the good will of jobbers and retailers by shaving his net prices. Prices may be used to an advantage in

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<sup>1</sup> McConnell. Op. Cit. p. 397.

introducing new brands. A new brand and untried brand is not equivalent to an established brand in the eyes of the consumer. His willingness to try a new brand may not be influenced by a low price or prevented by a high price. But a new brand may be effectively promoted with prices which are below or above established brand without other competitors coming in. Once a brand is well known and accepted in a given class, interbrand elasticity becomes higher and uniformity of prices within the class is certain to be established.<sup>1</sup> Interbrand elasticity means that when different brands are well known, there may be a tendency on the part of the consumer to switch from one brand to another. The demand for a specific brand at this point rests upon the conviction of the superiority of that brand. This depends not only upon quality, but also upon what advertisers can<sup>2</sup> make the consumer believe.

In the normal competitive situation in the twenties and thirties when the major brands had achieved maturity and when all were selling comparable volumes, the major manufacturers were content to set identical wholesale prices, to strive through auction market to pay approximately the same price for leaf tobacco, and to devote the difference between these two principal elements to<sup>3</sup> receipt and costs to advertising outlays.

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<sup>1</sup> Adams, Walter. Op. Cit. pp. 374-375.

<sup>2</sup> Adams, Walter. Op. Cit. p. 375.

<sup>3</sup> Adams, Walter. Op. Cit. p. 376.

Apart from new product introduction and the price war of 1933, price has seldom been used as a competitive tool. The absence of price competition does not necessarily imply collusion by the manufacturers. The possible interests which each might have in cutting prices lower than the others is eliminated by certain knowledge that the others will follow any cut, that net effect will be to the detriment of all without profit for any.<sup>1</sup>

In any event, the companies are concerned with increasing the individual share of the market rather than maximizing the profits of the industry as a whole. This attitude has led to the firms in the industry to make much larger advertising expenditures.<sup>2</sup>

The industry is unlike a monopoly because there are still chances for competition. The rise of Philip Morris and Brown & Williamson to their present status helps to prove this fact. The firms in the industry can compete with one another by using increased advertising and product innovations. The proliferation of filter tip cigarettes and other lengths and the reduction of tar and nicotine and the introduction of 100mm cigarettes also help to explain that the firms can compete with those tools effectively. None of them will

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<sup>1</sup> Adams, Walter. Op. Cit. p. 379.

<sup>2</sup> Ibid.

<sup>3</sup> Ibid.

gain control over prices once their individual brands are well established, for the consumers can now determine which brands to buy and not to buy. Price behavior, as has been pointed out earlier in this chapter, once brands are well established, would not be very different and so no firm will be able to control his prices as a monopolist will do when his brands have been well known in the market.

#### ADVERTISING:

The First World War was the occasion for the first major spurt in cigarette consumption because soldiers were freely supplied with this form of tobacco. It was not until that period that cigarette smoking acquired widespread social respectability. Persistent advertising helped to spread the habit. In the late twenties the potential market was vastly increased when cigarette companies ventured the suggestion of cigarette smoking by women. Advertising was enormously used to achieve this end.

The cigarette industry demonstrates better than any other, the power of advertising to create a market and the necessity of advertising to maintain that market. Heavy appropriations for advertising, more than anything else, explain the sixfold increase in consumption within the short period of three decades. The individual companies have discovered through experience that their sales are highly dependent upon

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<sup>1</sup> Alderfer, E.B. Economics of American Industry. (New York: 1950). pp. 633-34.

advertising. Whenever appropriations are curtailed, it is reflected almost immediately in reduced sales. The demand for a specific brand rests upon the conviction of the superiority of that brand. This depends not only on quality, but also upon what the advertisers can make the consumers believe.<sup>1</sup>

Advertising costs, the largest to tobacco, constitute one of the prime means available to the cigarette industry of maintaining and expanding the market for what is essentially a low brand loyalty item. An increase in the number of brands, types, and sizes has compounded the task. Spending for advertising has more than doubled since 1955. Advertising costs per carton in 1964 were at \$0.16, versus \$0.59 in 1955. The cost per carton varied widely from an established low of \$0.34 for Camel to a high of \$1.41 for Tempo, a new brand. In the few years, incentive compensation system for agencies, a relative increase in spot Television advertising, use of 'family concept' under which several types of cigarets are offered under the same brand name, introduction of premium brands with little advertising and 'piggy backing' of television commercials, have been used to hold down the increase of advertising costs.<sup>2</sup>

Although many attempts have been made to hold down the costs of advertising, yearly appropriations continue on the increase. This

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<sup>1</sup> Ibid.

<sup>2</sup> Standard & Poore's. Op. Cit. pp. 67-68.

could be seen from table six. For some of the companies like American Tobacco Company and R.J. Reynolds, the cost of advertising has almost doubled between 1960 and 1964. Also, despite critics and possible broadcast advertising ban, cigaret makers hike television spending from year to year as can be seen from table six and the following figures from Marketing Insight, which read as follows:

The six major tobacco companies spent \$122,470,300 in the first half of this year (1967) on spot and network television, compared with \$89,903,470 in the opening six months of 1966. That is an increase of 36.2 percent.<sup>1</sup>

From the present trend in advertising policies of the major cigaret companies, it can be seen that television advertising will continue to increase.

According to one knowledgeable tobacco source who asked not to be identified, he said that

"Unless the Federal Government intervenes to prohibit cigaret advertising on television, there is doubt if any tobacco company will change their advertising schedules drastically".<sup>2</sup>

Another tobacco official also said that he sees no cut in television advertising in the immediate future. Among other things he added:

"I am sure it is going to be up, simply because costs are up. I see no trend to cut television advertising".<sup>3</sup>

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<sup>1</sup> Market Insight. "Despite critics and possible broadcast ad ban, cigaret makers like TV spending". October 16, 1967. p. 8.

<sup>2</sup> Marketing Insight. Op. Cit. p. 8

<sup>3</sup> Ibid.



One major factor for the increase in television spending has been the recent introduction of perhaps a score of 100mm brands. The only noticeable decline in advertising is on spot and network radio spending. During the first six months of 1967, the spending on spot and network radio declined by 18.8 percent from \$16,092,000<sup>1</sup> to \$13,022,000. The cutback can be attributed to the thinking that radio now reaches a greater teen age audience, which cigaret makers want to steer away from. Table seven gives detailed figures on television and radio cigaret advertising for the first six months of 1967 versus 1966.

#### INVENTORY VALUES AND POLICY:

No industry has so a proportion of assets tied up in inventories as the cigarette industry. "Inventory accounts for 80 percent<sup>2</sup> of the total assets of the leading companies in 1948. The reason is that the raw tobacco has to be aged for at least 18 months. The companies generally follow the policy of carrying two to four years supply of tobacco. This enables a manufacturer to curtail raw material purchases in any one year if he regards prices as too high or if the quality is inferior. This buying and inventory policies of the industry create some strained relationship between the industry and the tobacco growers.<sup>3</sup>

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<sup>1</sup> Ibid.

<sup>2</sup> Alderfer. Op. Cit. p. 631

<sup>3</sup> Ibid.

TABLE 6

ADVERTISING EXPENDITURES 1960-1964  
FOR THE SIX LEADING CIGARET MAKERS  
(IN BILLIONS OF DOLLARS)

COMPANIES	1960	1961	1962	1963	1964
American Tobacco	36,000	36,000	46,000	55,200	70,500
Brown & Williamson	31,000	27,000	25,000	33,000	36,000
Ligget & Myers	36,000	28,500	29,500	34,000	35,000
Lorillard	31,000	31,500	36,500	37,000	36,000
Philip Morris	29,000	30,000	30,000	35,000	36,000
R.J. Reynolds	47,000	50,000	55,000	58,000	84,000

Source: Standard & Poore's Industry Surveys. (April 21, 1966) p. 68

TABLE 7

CIGARET ADVERTISING-TV & RADIO  
FIRST 6 MONTHS, 1967 Vs. 1966

TELEVISION (NET AND SPOT)

COMPANIES	1967	1966	PERCENT CHANGE
R.J. Reynolds	\$ 22,659,200	\$20,356,590	+11.3
American Tobacco	21,436,700	19,778,750	+ 8.4
Philip Morris	18,260,200	10,910,050	+67.4
P. Lorillard	15,178,600	11,117,410	--
Ligget & Myers	14,709,500	13,507,120	+36.5
Brown & Williamson	14,470,300	14,232,550	+ 3.4
TOTAL	\$122,470,300	\$89,903,470	+36.2

RADIO (NET AND SPOT)

COMPANIES	1967	1966	PERCENT CHANGE
R.J. Reynolds	\$ 5,178,000	\$ 5,978,000	-13.3
American Tobacco	3,052,000	4,745,000	-36.6
Philip Morris	---	---	---
P. Lorillard	3,179,000	3,161,000	+40.6
Ligget & Myers	1,595,000	2,143,000	-24.8
Brown & Williamson	18,000	65,000	-72.3
TOTAL	\$13,022,000	\$16,092,000	-18.8

Source: TV. B Figures from leading National advertisers -  
Rorabaugh; Radio Advertising Bureau

According to E.B. Alderfer, he noted that

Relations between the 1,602,000 tobacco growers and the cigarette makers are not entirely satisfactory. Since most of the annual crop domestically consumed is bought by a handful of companies, the farmers feel that the big companies conspire to keep prices down. Dissatisfaction on the part of the growers usually arises from the system of marketing leaf tobacco. Most tobacco is sold through auction warehouse systems. When the sales start, the auctioneer proceeds from one basket to another to the highest bidder until the floor is cleared.<sup>1</sup>

This auction system is very inefficient because the buyers are the manufacturers or their representatives, exporters, dealers and speculators. Sales are made very rapidly. This is disadvantageous to the farmers because buyers have to make a hasty appraisal and to protect themselves, they offer less than the tobacco should bring. Another unsatisfactory feature is the short marketing period in each tobacco growing area. If the farmer does not offer his tobacco before the large buyers have withdrawn their support, he must have to take what he can get later on or incur the risk and expense of sending his crop to a distant market.

Although the Federal Trade Commission has found no evidence of collusion among buyers, the tobacco marketing system has many earmarks of a buyers' market.<sup>2</sup> This is because sellers are numerous, small and impecunious; buyers are few, large and financially strong. The market is often glutted because tobacco is an ideal tenant farmer crop; it

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<sup>1</sup> Alderfer. Op. Cit. pp. 635-636.

<sup>2</sup> Alderfer, Op. Cit. p. 637.

<sup>3</sup> Ibid.

requires little capital but much labor to raise. The farmers are ever in urgent need of whatever cash their crop will bring. The manufacturers are seldom in urgent need of tobacco because they usually have a huge stock in the warehouses to fall back on.<sup>1</sup> The fact that the manufacturers are in no urgent need of tobacco makes the prices that the farmers get, based on what the cigaret makers are ready to pay. That is why the tobacco marketing system is said to have many earmarks of a buyers' market.

#### PROFIT MARGINS:

This branch of the tobacco industry (cigarette industry) has been unusually profitable. From the dissolution of the Trust to 1930, the "Big Three"; American Tobacco Company, Reynolds and Lorillard, earned consistently 10 percent, and over on their invested capitals,<sup>2</sup> with Philip Morris taking the place of Lorillard, the earning capacity of the leaders continued substantially unimpaired through the depression years of the thirties. As has been noted, the sustained earning power of the cigarette companies is rooted in the nature of the product. Smoking easily becomes a habit, which assures a steady demand.

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<sup>1</sup> Ibid.

<sup>2</sup> Alderfer, Op. Cit. p. 632.

TABLE 8

PROFIT MARGIN OF LEADING COMPANIES 1938-1948\*  
(OPERATING INCOME BEFORE DEPRECIATION AS A  
PERCENTAGE OF SALES, EXCLUDING EXCISE TAXES)

Years	American Tobacco	Liggett & Myers	Lorillard	Reynolds	Philip Morris
1938	23.9	21.5	14.8	22.4	27.7
1939	23.1	22.0	14.0	25.0	27.9
1940	27.9	23.4	14.7	26.3	26.6
1941	28.9	23.4	14.7	27.1	31.0
1942	28.5	24.6	16.9	25.1	23.4
1943	24.8	23.1	15.6	25.9	15.0
1944	18.0	17.5	16.7	18.9	15.0
1945	16.5	14.4	13.7	16.8	9.8
1946	15.9	15.8	10.6	16.6	11.8
1947	15.9	16.3	14.4	17.9	12.2
1948	18.9	18.9	13.5	18.0	

\*Alderfer. Op. Cit. p. 635.

TABLE 9

RISING LEAF, WAGES AND ADVERTISING COSTS AND  
INCREASING NON-TOBACCO ACTIVITIES EXERTED PRESSURE  
ON MARGINS IN RECENT YEARS.

PROFIT MARGIN (%) IN RECENT YEARS\*

Years	Industry	Cigarette Manufacturers	American Tobacco	Ligget & Myers	Lorillard	Philip Morris	Reynolds
1965	--	22.8	23.6	15.6	20.2	13.0	29.1
1964	15.9	22.9	22.7	19.2	20.8	12.8	29.3
1963	15.7	24.3	22.8	19.5	22.5	14.2	31.5
1962	15.2	24.4	22.9	20.5	21.2	15.2	30.8
1961	14.7	24.6	23.5	21.5	23.4	15.1	33.5
1960	14.7	23.5	20.5	22.0	23.4	15.3	30.2
1959	15.3	23.6	21.6	22.2	23.5	17.3	29.5
1958	14.4	23.2	21.7	23.8	23.5	16.2	28.6
1957	15.8	21.8	21.3	22.4	18.2	15.9	25.9
1956	15.3	22.2	20.9	21.5	11.2	15.3	28.4
1955	15.9	22.2	21.4	21.2	12.3	18.7	27.8

\*

Source: Standard & Poore's: Industry Surveys (April 21, 1966) P. T. 74.

PUBLIC POLICY:

Public policy as far as business is concerned, deals with how business must operate according to the regulations or controls established by the Government. Business in the United States is affected in many ways by the activities of government. It is government that provides the institutional foundation upon which business rests, the legal framework within which it functions, and many of the instruments through which its activities are carried on. The economic system within which business functions is shaped<sup>1</sup> by government.

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Definition of words.

By 'business' in this context, is meant that part of economic activity that has to do with the production, distribution and sale of goods and services.<sup>2</sup>

'Public' means some agencies of government. The general public influences business through channels other than those of government through buying or failing to buy its products through force of public opinion, but this paper is concerned with control through government.<sup>3</sup>

The meaning of 'Control' in this paper is confined to the deliberate adoption by government of measures designed to cause the policies of business to differ, in material aspects, from those that they would voluntarily pursue. So, the common feature of control is modification of the behavior of business in response to pressure applied through government.<sup>4</sup>

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<sup>1</sup> Wilcox, Clair. Public Policies Toward Business. (Swarthmore College, 1960) p. 3.

<sup>2</sup> Wilcox, Clair. Op. Cit. p. 4.

<sup>3</sup> Ibid.

<sup>4</sup> Ibid.



The purposes for which government applies controls to business are as follows:

The maintainance of internal order, such as defense against external aggression, preservation of individual freedom, reduction of inequality of income, assurance of economic and social security and improvement of consumer welfare.<sup>1</sup>

Government has sought by the above purposes to maintain competition. It has preserved freedom of entry into markets, forbidden agreements to curtail production or fix prices, broken up existing combinations and prevented the formation of new ones, and outlawed competitive methods that would destroy competition and make for monopoly. To this end, it established standards, forbidden adulteration and misrepresentation, required publicity, inspected business operations and regulated organized exchanges.<sup>2</sup> These steps were taken to maintain the above mentioned purposes which constitute public policies. It was the section dealing mostly with competition, price fixing, monopolizing and the improvement of consumer welfare, that the cigaret makers violated and charges were brought against them.

I would rather mention a few of public policy abuses by the cigaret industry than discuss them in full. The American Tobacco Trust case in 1911 and the American Tobacco Company case of 1946 were the two court cases involving the industry. In the Trust case, abuses were charged on the grounds that the Trust sought to monopolize the tobacco

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<sup>1</sup>  
Ibid.

<sup>2</sup>  
Ibid.

industry through unfair methods and that its size brought no economies which would benefit the public.

The Trust was dissolved under the provisions of the Sherman Act. The 1946 case sought to prove that collusion and conspiracy existed among the major firms thereby monopolizing the industry among a few firms. The major firms were found guilty, but no constructive measures were taken to regulate their future operations.

Many people have suggested that the cigaret industry be broken up into smaller firms to reduce the oligopolistic nature of the industry. From the discussion in this paper, it could be concluded that no other system will work better than the present one. There are still chances for competition among the participating firms, even the small ones. The products of rival manufacturers, although similar, are not identical in the public eye, and cannot be made so. The firms cannot merely sell at the going prices all that they wish, but must fight for markets and this is the function of a brand name, advertising and other methods of distribution. Since perfect competition cannot exist in the industry, all possibly alternative forms of market structure which might be set up in place of the present oligopolistic method must contain some other kind or degree of monopolistic element. The present organization and behavior of the cigaret industry appears favourable when compared with possible alternative market structure or alternative types of behavior. Perfect competition is not attainable. A full monopoly would offer doubtful savings and other overwhelming

drawbacks. Monopolistic competition or looser oligopoly would probably result in increased costs. The major wastes of the industry are wastes of competition and they could not be removed without eliminating competition or seriously restricting it. If competition is accepted as desirable in itself, people must accept costs and there are no obvious guides as to how much competition is too much or how much cost is excessive.

## CHAPTER III

### RELATIONSHIP BETWEEN THE INDUSTRY MARKET STRUCTURE AND THE PRICE POLICIES

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From the many points raised, it could be seen that there is a great demand for cigarettes which is for the most part psychic and partly based on habit. The increased popularity of the product has caused it to become the most important product among the tobacco products. It could also be seen that there are many factors influencing the demand and consumption of cigarettes. Though the industry is heavily taxed, and production costs increased, sales and profits continue on the increase year after year. That shows that high prices do not deter consumption as it does in some other products. The demand for cigarettes is such that in periods of stable income, there is relatively little sensitivity in the area of reasonable price increase. The urgency of the wants which tobacco satisfies, the small cost even of relatively expensive tobacco and the complete lack of substitutes make the volume of tobacco (cigaret) consumption independent of prices over a wide range. Changes in tobacco usage appear to be carried along on broad social currents of fashion and taste, and do not seem to be greatly influenced either by relative price of tobacco products or by advertising activities.

Based on these reasons, Government restrictions through excise taxes and prohibitions of intensive advertising may not be very effective in reducing cigarette consumption. Where such restrictions would

work at all, is because of the existence of irrational brand preferences. The existence of such irrational brand preferences renders demand highly susceptible to advertising. The shifting fortunes of the leading brands within the same product type reflect both autonomous fluctuation in tastes and the varying pressure of advertising.

From all the indications in the market operations of the industry, consumption will continue to rise irrespective of the type of pricing policies adopted by the companies or the restrictive methods and attacks by the government and some private agencies. The ultimate effect of the cancer problem is difficult to judge. The charges have so far produced only a temporary dip in cigarette consumption and it will take major confirming evidence and long exposure to the lesson for consumption to be seriously affected. Without additional evidence, it is unlikely that existing smokers will reduce consumption substantially. Some threat to the industry is posed by the likelihood that fewer non-smokers will be converted. The multiplication of so-called "safe brands" by the various companies will become a permanent feature of the industry. This might tempt new entrants to go on large scale cigarette consumption.

#### WHY ARE THE MAJOR PRODUCERS DIVERSIFYING?

The major cigaret makers are not resting on their oars because present sales are on the increase. There are fears in the minds of the manufacturers that the anti-smoking campaigns may hurt their future sales

and income, hence many are diversifying. More will be said about diversification in the next chapter dealing with the future of the cigaret industry. The fears of the cigaret makers may be reasonable or justified because according to a study on brand comparisons conducted by television advertising representatives<sup>1</sup> during March and May, 1967, anti-cigaret drive, may be influencing usage. The detail of the report reads as follows:

The arguments against cigaret smoking, in the form of government regulations, as well as persuasion by private agencies, may finally be having an effect. The ninth annual Television Advertising Representative's study covered consumption and brand usage of 370 products in 12 categories during March and May, 1967, among some 5,000 families in eight markets where Television Representatives represent television stations; Boston, Philadelphia, Baltimore, Washington, Charlotte, Jacksonville, Pittsburgh and San Francisco. Unlike the survey which showed smoking increases in five of eight markets, increases occurred in only three markets during 1967 researched period. In the remaining five survey markets, cigaret smoking declined.

The largest decline was registered in Boston, where the study indicated 51.1 percent of the men surveyed were cigaret smokers, compared with 54.7 percent during the same period of 1966. Smoking among women also fell off heaviest in Boston (43.9 percent in 1967 vs. 46.0 percent in 1966). Cigaret smoking also declined in Philadelphia (55.5 percent in 1966 vs. 53.0 percent in 1967), Washington (53.4 percent in 1966 vs. 51.1 percent in 1967), Jacksonville (56.7 percent vs. 53.7 percent), and San Francisco (52.7 percent vs. 51.0 percent).

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<sup>1</sup>Marketing Insight. "Anti-cigaret drive may be influencing usage". (November 27, 1967) p. 8

In addition to Boston, women were smoking less in Philadelphia (42.2 percent in 1966 against 40.8 percent in 1967), Washington (40.8 percent vs. 39.4), Charlotte (36.4 percent vs. 33.8 percent), and San Francisco (40.2 percent vs. 39.6 percent).<sup>1</sup>

Baltimore, Charlotte and Pittsburgh were the three markets which saw an increase in cigaret smoking among men with the largest percent in Charlotte, the heart of the tobacco country. The survey indicated a 1967 figure of 57.2 percent, compared with 53.9 percent last year (1966). Also showing increases were Baltimore (56.3 percent vs. 53.2 percent in 1966), and Pittsburgh (50.6 percent against 48.3 percent in 1966). Increases for women in 1967 showed Baltimore (44.5 percent vs. 41.8 percent), Jacksonville (36.3 percent vs. 35.1 percent), and Pittsburgh (34.7 percent vs. 30.9 percent).<sup>2</sup>

Despite the declines in the various sectors of the country, cigaret sales are on the increase generally. According to the United States Department of Agriculture, smokers will burn record number of cigarets in 1967. The report goes like this:

The department of Agriculture estimates that U.S. smokers will consume a record 551 billion cigarets this year (1967) -- 10 billion more than were smoked in 1966. The total United States cigarets manufactured in 1967 is expected to reach an all time of 589 billion. This nearly 13 billion more than 1966 output and approximately 12 billion above the 1965 level.

The number of cigarets consumed per capita, 18 years and over, in 1967, will reach an estimated 4,295 or 213 3/4 packs. This per capita total would be slightly above the 1966 figure, but it is not a record. The record was set in 1963 when the per capita figure reached 4,345 or 217 1/4 packs.

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<sup>1</sup>

Ibid.

<sup>2</sup>

Marketing Insight. Op. Cit. p. 8

A further moderate increase in total cigaret consumption in 1968 seems likely, mainly because of the continuing increase in the smoking-age population and the high level of consumer income.<sup>1</sup>

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<sup>1</sup> Marketing Insight. Op. Cit. p. 4.



## CHAPTER IV

### THE FUTURE OF THE CIGARETTE INDUSTRY

It is now noticeable that the cigarette industry is moving towards other industries. This is because there is difference of opinion as to the future trend of cigaret consumption. As of present, the industry is enjoying increase in sales. Though there is ever mounting anti-smoking campaigns which could have led to decline in the demand and sales of the product, such did not happen. As has been pointed out earlier, cigarettes have a number of advantages over other types of consumer goods. Customers are habitual users, renewing their purchases several times a week. The unit of purchase is small, about 30 cents. The product is available everywhere. It is estimated that there are about 600,000 retail outlets in the United States.

Despite these obvious advantages, the manufacturers are not inclined on waiting to see something serious happen to their industry before taking necessary precautionary and security measures. That is why many of the cigaret manufacturers are diversifying. The trend toward diversifying started by Philip Morris, accelerated in recent years, particularly in 1966 and 1967, when liquor, food, and candy companies were the main forms of new diversification.

Philip Morris acquired Milprint, Inc., a converter of flexible packaging materials and Polymer Industries, producers of chemical adhesives and textile additives in 1957 and 1958 respectively.

Subsequent acquisitions were American Safety Razor Company, a line of shaving cream and mens' toiletries, and Clark Gum Company. Including International cigarette revenues, a third of this company's volume is from sources other than U.S. cigarettes.

R.J. Reynolds maintains an aluminum foil rolling and processing plant. In 1963 it acquired Pacific Hawaiian Product Company, a producer of non-carbonated fruit juice beverages, and in 1965, Penich and Ford, the fourth largest producer of corn products, filler products (snack food) and Chun King Corporation (packaged and frozen Chinese-American food) in 1967. Approximately 11% of total revenue is now derived from non-cigarette business.

American Tobacco acquired Sunshine Biscuits and Beam Distilling and is in the process of acquiring Buckingham and Paddington Corporation (Cutty Sark Scotch Whisky) which would lift non-cigarette sales to perhaps 28% of the total sales. Efforts to acquire Royal Crown Cola were unsuccessful.

Liggett and Myers in 1964 acquired Allen Products, maker of Alpo dog food; in 1966 about 80% of Star Industries and Paddington Corporation (related firms whose main product is J & B Scotch Whisky) were acquired. Over one fourth of sales is from non-tobacco products.

In 1964 Lorillard acquired Usen Canning Company, maker of Tabby and Three Kittens cat foods. It also entered the candy field through acquisition in 1965. Pending acquisition of Schenly Industry

(liquor) would probably lift Lorillard's present small non-cigarette business to about half of total sales.

All the above moves have in common a desire to make greater use of the considerable marketing skills of the cigaret industry and to create safety valves in case the numerous campaigns against cigaret smoking begins to hurt sales and profitability in the industry. As has been noted earlier in this paper, more attempts will be made to make cigaret smoking safer. As campaigns and attacks mount, it should be expected that marketers should be on the edge of more exotic ventures to meet the challenges.

The attempts by cigaret makers to make smoking safer also means that more research will be done. The cost of these researches adds to the production costs of cigarets. The various federal, state and local taxes also add to the present increasing production costs of cigarets. Some of the costs will be passed on to the consumer in the form of higher prices for cigarets. Such moderate increases of prices of cigarets do not deter increase in sales or smoking of cigarets as they do in other industries. Despite increase in prices to the consumers, cigaret sales volumes continue to create new records from year to year. Even though cigaret makers are diversifying to hedge against possible future loss in cigaret sales, they will continue with their present pricing policy which is moderate price increase and not shifting all the tax burden to the consumers.

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<sup>1</sup> Standard & Poore's Op. Cit. (May 4, 1967, Section 3) pp. 65-66.

SUMMARY AND CONCLUSION:

The cigaret industry is blessed with a product with peculiar appeal. Unlike other products, cigaret has quite distinctive characteristics that have sustained the earning power of the industry. Smoking easily becomes habitual, which assures a steady demand. Based on past experience, cigaret sales are virtually depression resistant. Although changes in disposable income have some effect as could be noticed during the depression of 1930s and other periods when price of cigaretts increased, but other factors including the difficulty of breaking the habit, the increasing population and the relatively small unit costs, have combined to sustain consumption during periods of economic unsettlement.

By market structure, the cigaret industry is oligopolistic, (a few firms dominating the production of cigaret and the action of one of the big few firms can affect the whole market for cigaret). As discussed in chapter one, market structure in any particular industry depends in significant respects upon the techniques of competition among the participating firms in the industry. But apart from the competition between the participating firms in the industry, it can be said that there is another form of competition. This second form is rather external in that it comes from government and anti-smoking agencies. No industry has faced such competition to survive as the cigaret industry. Anti-smoking campaigns are directed by such agencies as American Cancer Society, Government and some other private agencies, to

discourage smoking. According to the Surgeon General's findings in 1964, it is believed that cigaret smoking causes lung cancer and some other related diseases.

To counteract whatever effect anti-smoking campaigns may have on cigaret sales, the cigaret makers have devised certain methods of improving cigaret smoking. Some of the methods are (a) The introduction of filter tip cigaretts, (b) reduction of tar and nicotine contents in cigaretts, and (c) making cigaretts longer and milder. Also to assure a steady income in the future at present levels or better, many of the cigaret makers are diversifying. They have gone mostly into food and drink industries, where their marketing experiences in cigaret industry would be very beneficial.

It has been common knowledge that the demand for all tobacco products taken together is highly inelastic. Since the first discovery of the weed, tobacco has been a favorite object of taxation and of state and private monopoly because of the heavy charges which it bears without appreciably diminishing consumption. The urgency of the wants which tobacco satisfies and the complete lack of substitutes make the volumes of tobacco consumption independent of prices. It is the unique nature of the tobacco products (cigaret being one of them) that has made the industry adopt moderate price increase policy. Such policy will continue in the future and such will not decrease consumption because tobacco product has no substitutes, hence the product consumption will continue to be inelastic.

Oligopolistic pricing will continue to dominate the industry because it is only through that and concerted pricing policies can the firms in the industry maximize their profits.

Advertising outlays will continue to be heavily appropriated because of the competitive nature between the individual brands of cigarettes. This is also because new and safer cigarettes will, from time to time, be introduced to the market in answer to anti-smoking campaigns. Such introductions demand heavy advertising outlays. From the present trend in advertising, it could be predicted that radio will be used less for cigarette promotion and that the television will be the dominant medium of advertising. There is impending speculation that television advertising of cigarettes will be stopped in the future. This may not pose a very grave danger to cigarette consumption and sales. This conclusion is based on what has been happening in Britain in recent years. The British Government stopped all television promotion of cigarette and more than anybody, has imposed very strict measures and anti-smoking campaigns. All these stringent measures have not reduced the volume of cigarettes smoked in Britain or changed the attitudes of the smokers there.

From all the above, it could be said that the cigarette industry is in no immediate danger of reduced sales. But to assure continued, steady income and to counteract the various anti-smoking campaigns, the industry will continue in the attempt to produce safer cigarettes and to diversify into such industries where the experiences in cigarette marketing will be of great help.

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